

CITY OF NORTH CHICAGO

1850 LEWIS AVENUE

NORTH CHICAGO, IL 60064

847 / 578-7778

847 / 578-9999 FAX

March 12, 1996

Mr. John L'Graey
SR6J
U.S. Environmental Protection Agency, Region 5
Super Fund Division
77 W. Jackson
Chicago, IL 60604-3590

Subject: Pettibone Creek Area
City of North Chicago

Dear Mr. L'Graey:

I have enclosed excerpts of the following reports pertaining to environmental information at the Pettibone Creek area of North Chicago:

1. Phase II Report, Environmental Assessment, North Chicago Bike Path, June 7, 1991.
2. IEPA Onsite and Offsite Soil Sample Information.
3. American Environmental Analytical Laboratory Report for 6 Locations.
4. CBC Environmental Laboratories Pettibone Creek Composite Soil Sample.

If you have any questions or need additional information, please contact me.

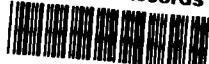
Sincerely,

CIORBA GROUP, INC.
CITY OF ENGINEER FOR NORTH CHICAGO

A handwritten signature in black ink, appearing to read "Bruce E. Burris".

Bruce E. Burris, P.E.

EPA Region 5 Records Ctr.



229830

PHASE II REPORT
ENVIRONMENTAL ASSESSMENT

**NORTH CHICAGO BIKE PATH
20TH TO 24TH STREETS
NORTH CHICAGO, ILLINOIS**

prepared for:

**LAKE COUNTY
DIVISION OF TRANSPORTATION**

prepared by:

**ENVIRODYNE ENGINEERS, INC.
168 NORTH CLINTON STREET
CHICAGO, ILLINOIS 60606**

JUNE 7, 1991

Table 1
ANALYTICAL RESULTS – 8 RCRA METALS

**Results (Total PPM)

RCRA Metal	S-1	S-2	S-3	S-4	S-5	S-6	RCRA TCLP Limits *
Arsenic	3.00	1.33	1.2	0.07	1.27	4.00	5.0
Barium	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	100.0
Cadmium	0.26	2.99	0.89	3.26	1.90	2.71	1.0
Chromium	16	24.8	14.9	9.25	12.3	17.2	5.0
Lead	79.3	1250	227	294	125	715	5.0
Mercury	0.03	0.07	0.04	0.03	0.20	0.02	0.2
Selenium	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0
Silver	10.4	2.52	1.13	2.75	2.17	2.81	5.0

* The TCLP (Toxic Characteristic Leaching Procedure) is an analytical method in which acid is used to leach metals from the sample. The concentrations of leachable metals in this column are the limits set by RCRA (Resource Conservation and Recovery Act) to define hazardous waste.

** Analysis results are reported as total metals which includes leachable as well as unleachable metal constituents.

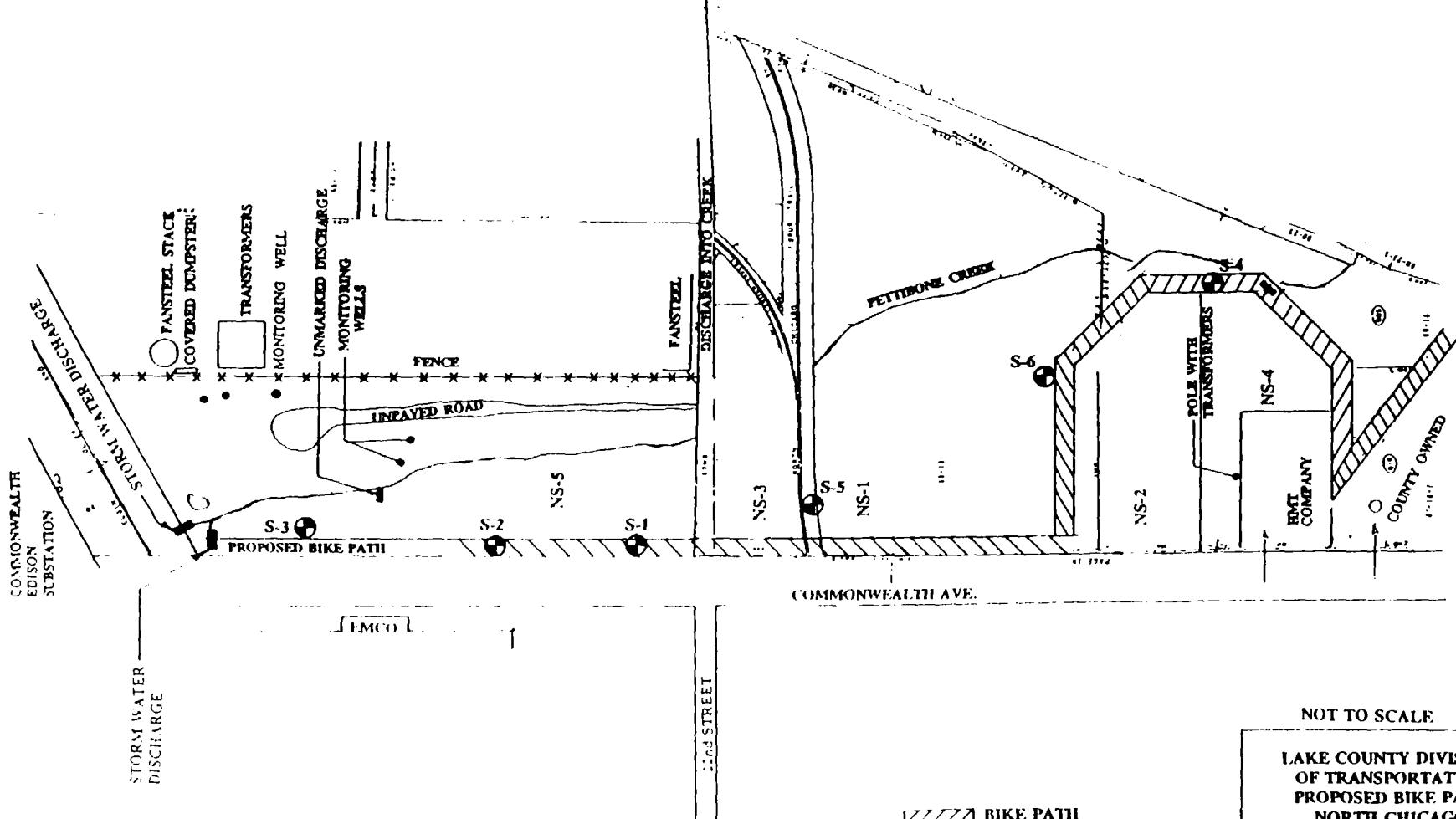


EXHIBIT 2

LAKE COUNTY DIVISION
OF TRANSPORTATION
PROPOSED BIKE PATH
NORTH CHICAGO
BORING LOCATION

CHAMBERLAIN ENGINEERS, INC.
100 N. Dearborn
Chicago, Illinois 60601

3526

NTS
Rev. 2/15/01

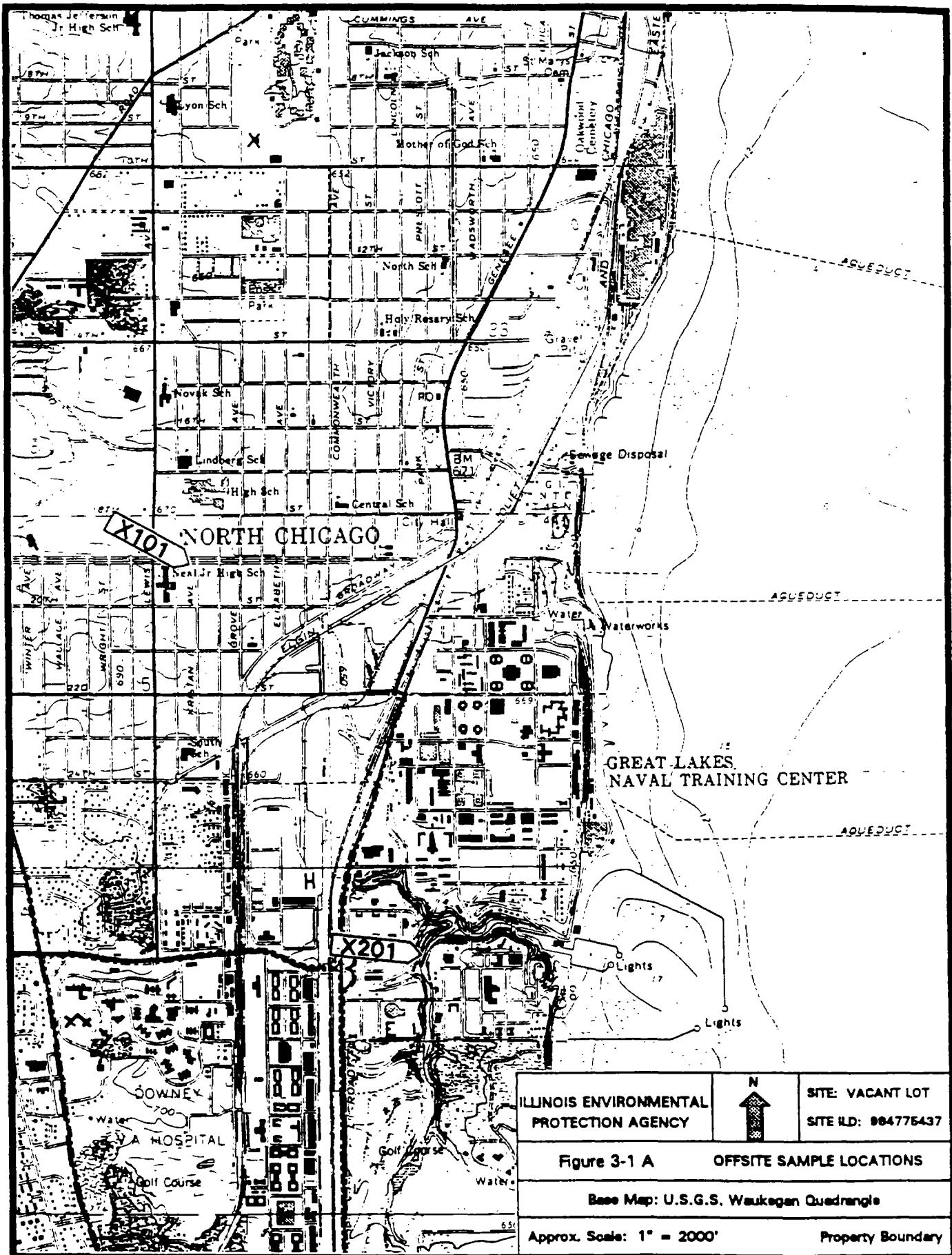


Figure 3-1 A OFFSITE SAMPLE LOCATIONS

Base Map: U.S.G.S. Waukegan Quadrangle

Approx. Scale: 1" = 2000'

TABLE 3 - 1
ONSITE AND RESIDENTIAL SAMPLE DESCRIPTIONS

SAMPLE	DEPTH	APPEARANCE	LOCATION
X101	0" - 2"	Dark brown, somewhat clayey	Neal Elementary School - ball field. 146'6" south of street sign at SW corner of intersection of Argonne and Kristan.
X102	2" - 4"	Dark, fine cinder-like material	47' directly east of eastern edge of Pettibone Creek and 119' south of foot of rail bed.
X103	1" - 3"	Dark, moist, sandy, rocky with some organic material. No weeds/grass cover, some gravel.	131' north of north side of sidewalk (Martin Luther King Jr.) and 48' east of Pettibone Creek.
X104/X105	1" - 3"	Dark, moist fine cinder material with some gravel.	300' north of north side of Martin Luther King Jr. Drive and 86' east of east edge of Commonwealth.
X106	NOT COLLECTED		
X107	1" - 2"	Dark, sandy, gritty material. Collected from former burn area. Moss at surface.	38' west of G103 and 38' north of G103.
X108	0" - 1"	Black loam with some clay.	Apt. Building 927 - 941 Broadway Ave. 77' east of west end of north building and 86' west of east end of north building.
X109	0" - 1"	Black loam with organic matter.	943 Broadway Ave. 28' south and 9' west of southeast corner of residence.
X110	0" - 1"	Black loam with organic matter.	919 Broadway Ave. 15' east and 42' south of southwest corner of main residence.
X111	0" - 1"	Black loam with organic matter.	923 Broadway Ave. 23' south and 17' west of southwest corner of residence.
X112	0" - 1"	Black loam with some clay and little organic matter.	945 Broadway Ave. 36' south and 19' east of southeast corner of residence.

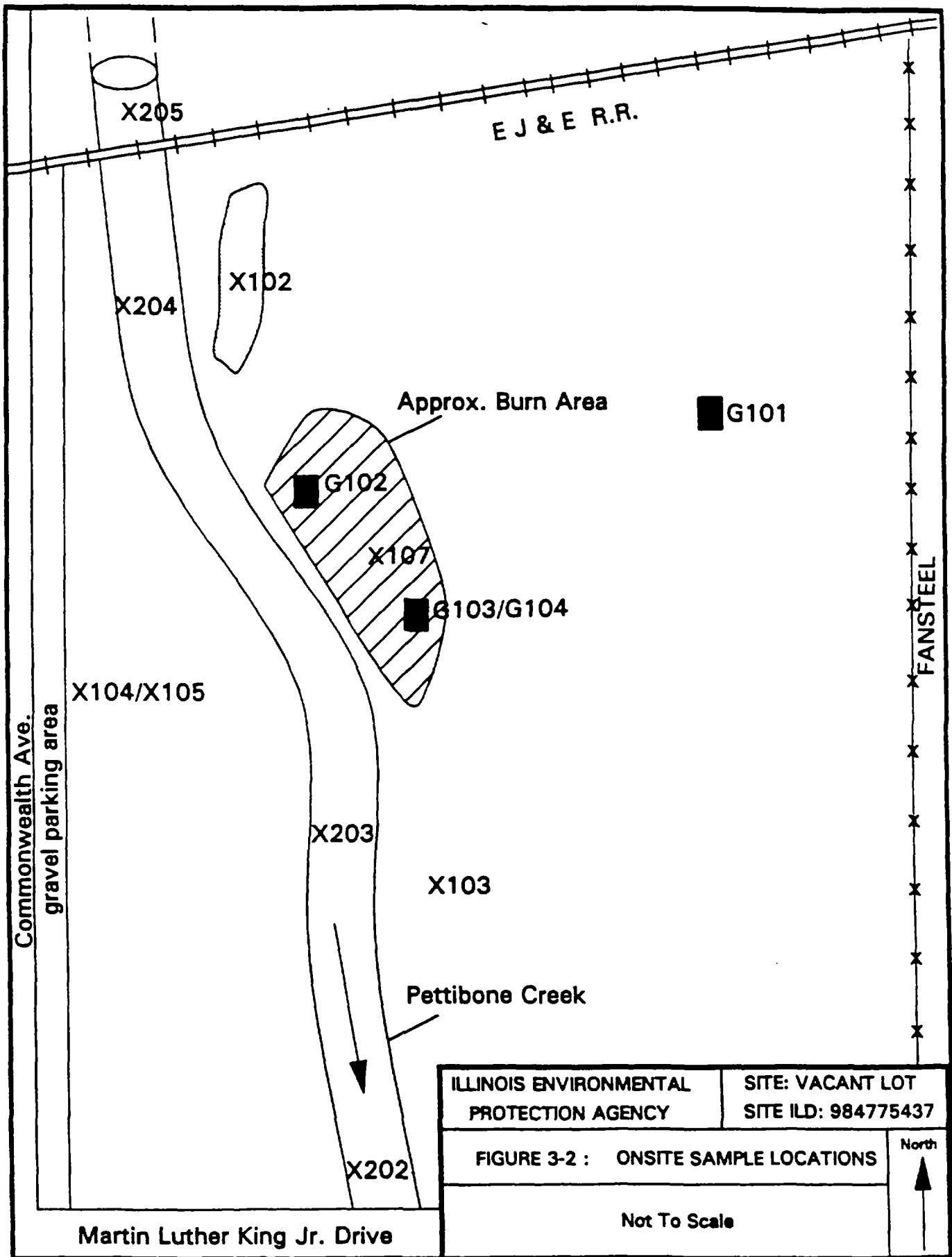
TABLE 3 – 2
SEDIMENT SAMPLE DESCRIPTIONS

SAMPLE	DEPTH	APPEARANCE	LOCATION
X201	0" – 2" under 3" water	Light brown; sandy silt with some clay	Grt. Lakes Navy Training Ctr. in tributary to Pettibone. Approx. 261' north of incinerator and 125' downstream of steampipe. (See Figure 3–1 A)
X202	0" – 1" under 3" – 4" water	Brown; gravelly with roots fine to medium grain	Vacant lot; west bank of Pettibone 65' north of north side of Martin Luther King Jr. Drive.
X203	0" – 3" under 4" – 6" water	Medium brown; fine grain	Vacant lot; west bank of Pettibone 12' south of culvert entering creek from west.
X204	Not Recorded	Black; medium to coarse grain sandy with rocks; foul smell	Vacant lot; Pettibone Creek, 41' west and 98' south of monitoring well G103.
X205	0" – 3" under 4" water	Dark, very fine silt material	Origin of Pettibone Creek, north of Elgin and Joliet R.R. Approx. 2' north of north edge of north culvert.

DATA QUALIFIERS

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
U	Compound was tested for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by two, to account for the fact that only half of the extract is recovered.	Analyte was analyzed for but not detected.
J	Estimated value. Used when estimating a concentration for tentatively identified compounds (TICS) where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria and the result is less than the sample quantitation limit but greater than zero. Used in data validation when the quality control data indicate that a value may not be accurate.	Estimated value. Used in data validation when the quality control data indicate that a value may not be accurate.
C	This flag applies to pesticide results where the identification is confirmed by GC/MS.	Method qualifier indicates analysis by the Manual Spectrophotometric method.
B	Analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	The reported value is less than the CRDL but greater than the instrument detection limit (IDL).
D	Identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor as in the "E" flag, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values are flagged with the "D" flag.	Not used.
E	Identifies compounds whose concentrations exceed the calibration range for that specific analysis. All extracts containing compounds exceeding the calibration range must be diluted and analyzed again. If the dilution of the extract caused any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses must be reported on separate Forms I. The Form I for the diluted sample must have the "DL" suffix appended to the sample number.	The reported value is estimated because of the presence of interference.
A	This flag indicates that a TIC is a suspected adduct concentration product formed by the reaction of the solvents used to process the sample in the laboratory.	Method qualifier indicates analysis by Flame Atomic Absorption (AA).
M	Not used.	Duplicate injection (a QC parameter not met).

N	Not used.	Spiked sample (a QC parameter not met).
S	Not used.	The reported value was determined by the Method of Standard Additions (MSA).
W	Not used.	Post digestion spike for Furnace AA analysis (a QC parameter) is out of control limits of 85% to 115% recovery, while sample absorbance is less than 50% of spike absorbance.
*	Not used.	Duplicate analysis (a QC parameter not within control limits).
+	Not used.	Correlation coefficient for MSA (a QC parameter) is less than 0.995.
P	Not used.	Method qualifier indicates analysis by ICP (Inductively Coupled Plasma) Spectroscopy.
CV	Not used.	Method qualifier indicates analysis by Cold Vapor AA.
AV	Not used.	Method qualifier indicates analysis by Automated Cold Vapor AA.
AS	Not used.	Method qualifier indicates analysis by Semi-Automated Cold Spectrophotometry.
T	Not used.	Method qualifier indicates Titrimetric analysis.
NR	The analyte was not required to be analyzed.	The analyte was not required to be analyzed.
R	Rejected data. The QC parameters indicate that the data is not usable for any purpose.	Rejected data. The QC parameters indicate that the data is not usable for any purpose.



VACANT LOT
ILD984775437

TABLE 3-3
SOIL SAMPLE SUMMARY
N.A. = Not Analyzed

SAMPLING POINT PARAMETER	X101 Bigrd. Soil 8-4-93	X106 Res. Soil 8-5-93	X109 Res. Soil 8-5-93	X110 Res. Soil 8-5-93	X111 Res. Soil 8-5-93	X112 Res. Soil 8-5-93
VOLATILES						
Acetone	14.00 U	N.A.	N.A.	N.A.	N.A.	N.A.
1,2-Dichloroethane (total)	14.00 U	N.A.	N.A.	N.A.	N.A.	N.A.
Chloroform	14.00 U	N.A.	N.A.	N.A.	N.A.	N.A.
2-Ethylone	14.00 U	N.A.	N.A.	N.A.	N.A.	N.A.
1,1,1-Trichloroethane	14.00 U	N.A.	N.A.	N.A.	N.A.	N.A.
Trichloroethene	14.00 U	N.A.	N.A.	N.A.	N.A.	N.A.
Tetrachloroethene	14.00 U	N.A.	N.A.	N.A.	N.A.	N.A.
Toluene	14.00 U	N.A.	N.A.	N.A.	N.A.	N.A.
SEMOVOLATILES						
Naphthalene	440.00 U	1800.00 J	--	--	--	--
2-Methylnaphthalene	440.00 U	--	--	--	--	--
Acenaphthylene	440.00 U	--	--	--	--	--
Acenaphthene	440.00 U	1800.00 J	--	--	--	--
Oibenzenuran	440.00 U	1800.00 J	--	--	--	--
Phenanthrene	280.00 J	1800.00	830.00 J	1200.00	1400.00	94.00 J
Anthracene	440.00 U	2800.00 J	--	--	--	--
Carbazole	440.00 U	2800.00	--	210.00 J	280.00 J	--
Fluoranthene	480.00	1800.00	1000.00 J	1800.00	2000.00	200.00 J
Pyrene	420.00 J	1800.00	880.00 J	1800.00	1700.00	170.00 J
Benz(a)anthracene	180.00 J	770.00	540.00 J	840.00	1100.00	110.00 J
Chrysene	440.00 U	880.00	--	1100.00	--	--
ben(2-Ethylnaphthalene)	160.00 J	--	940.00 J	--	--	98.00 J
Benz(b)fluoranthene	340.00 J	880.00	580.00 J	1100.00	1200.00	270.00 J
Benz(k)fluoranthene	440.00 U	710.00	470.00 J	--	740.00 J	--
Benz(a)pyrene	440.00 U	780.00	550.00 J	740.00	1000.00	--
Indeno(1,2,3-cd)pyrene	440.00 U	400.00	--	420.00 J	570.00 J	--
Benz(g,h)perylene	440.00 U	380.00	--	--	520.00 J	--
PESTICIDES						
gamma-BHC (Lindane)	2.30 U	--	--	--	--	0.20 J
Hep-tachlor	2.30 U	--	--	1.80 J	--	0.83 J
Aldrin	1.00 JP	17.00 P	6.70 P	4.80 P	--	3.20 P
Hep-tachlor epoxide	0.82 J	--	7.80	3.50 J	3.90	--
Endosulfan I	2.30 U	--	--	--	--	--
Dieldrin	4.40 U	38.00	16.00	8.10 P	4.70 P	43.00
4,4'-DOE	4.60 PJ	220.00 P	70.00 P	94.00 P	71.00 PJ	4.80 J
Endrin	6.80	--	26.00 P	--	28.00	--
Endosulfan II	1.20 JP	--	--	--	--	--
4,4'-DDO	4.40 U	--	--	88.00	31.00 J	2.30 J
Endosulfan sulfate	4.40 U	84.00 P	11.00	56.00	26.00	1.20 J
4,4'-DDT	6.40 PJ	580.00 P	82.00 P	77.00 P	97.00 PJ	15.00 J
Methoxychlor (Merial)	21.00 W	--	110.00 PJ	--	--	--
alpha-Chlorodene	2.30 U	23.00 P	16.00 P	7.90	28.00	7.00
gamma-Chlorodene	1.20 J	25.00	10.00 P	5.80	13.00	3.30
Aroclor-1222	44.00 U	--	110.00 P	--	--	--
Aroclor-1242	44.00 U	--	--	--	--	--
Aroclor-1248	44.00 U	280.00 P	--	--	--	--
Aroclor-1254	42.00 JP	1700.00	460.00 P	370.00 P	--	--
Aroclor-1260	180.00	1800.00 P	760.00 P	880.00 P	890.00 P	180.00 P
INORGANICS						
Aluminum	14900.00	7310.00	9570.00	7810.00	12100.00	13700.00
Antimony	15.10 U	--	--	--	--	12.80 B
Arsenic	7.73	0.68	8.06	5.01	9.47	9.47
Barium	77.20	178.00	108.00	112.00	128.00	86.90
Beryllium	1.00 B	2.00 B	1.40	1.00 B	1.30	0.97
Cadmium	0.82 U	17.80	8.80	--	9.80	--
Calcium	9710.00	28300.00	15700.00	18700.00	17800.00	23300.00
Chromium	22.50	90.90	30.90	14.80	24.20	21.40
Cobalt	14.00 B	8.20	12.00 B	5.30 B	11.90 B	13.40
Copper	33.20	9220.00	1960.00	3980.00	1180.00	382.00
Iron	23800.00	13600.00	16600.00	10700.00	23600.00	24600.00
Led	46.75	1780.00	1110.00	842.00	910.00	198.00
Magnesium	8740.00	6700.00	7750.00	4380.00	9320.00	14900.00
Manganese	758.00	285.00	608.00	247.00	736.00	814.00
Mercury	0.07 B	1.77	0.61	0.41	0.36	0.11
Nickel	26.80	158.00	87.30	72.80	84.00	37.20
Potassium	2700.00	1660.00 B	1800.00 B	1560.00 B	2390.00	2440.00
Selenium	0.28 U	2.79 J	--	--	--	--
Silver	0.82 U	3.30 B	1.70 B	--	0.70 B	--
Sodium	67.50 B	187.00 B	88.40 B	208.00 B	112.00 B	67.80 B
Thallium	0.44 B	--	--	--	--	--
Vanadium	29.10	18.70	21.80	18.10	28.50	27.80
Zinc	124.00	8470.00	4830.00	5810.00	10700.00	1840.00
Boron	3.00 U	--	--	--	--	--

VACANT LOT
LD88-0775437TABLE 3-4
GROUNDWATER AND SEDIMENT SAMPLE SUMMARY
N.A. = Not Analyzed

SAMPLING POINT	G101 Grd. Wt. Blgrd. 5-5-93	G102 Grd. Wt. 5-5-93	G103 Grd. Wt. 5-5-93	G104 Dup. of G103 5-5-93	X201 Sed. Blgrd. 5-5-93	X202 Sediment 5-4-93	X203 Sediment 5-4-93	X204 Sediment 5-4-93	X205 Sediment 5-4-93
PARAMETER									
VOLATILES	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Bromomethane	---	---	---	---	---	---	---	---	---
Vinyl Chloride	10,000 U	2800,000 D	---	---	10,000 U	---	68,000	2200,000	140,000
Chloroethane	---	---	---	---	---	---	---	---	---
Acetone	10,000 U	8,000 J	---	---	7,000 J	21,000	1800,000	---	16,000 J
Carbon Disulfide	---	---	---	---	10,000 U	3,000 J	---	---	---
1,1-Dichloroethane	10,000 U	58,000	---	---	10,000 U	---	---	---	---
1,1-Dichloroethene	10,000 U	7,000 J	---	---	10,000 U	47,000	---	---	---
1,2-Dichloroethane (total)	10,000 U	410,000 DJ	---	---	10,000 U	91,000	1800,000	8800,000	220,000
Chloroform	---	---	---	---	10,000 U	---	4,000 J	---	4,000 J
2-Butanone	---	---	---	---	10,000 U	4,000 J	7,000 J	---	---
1,1,1-Trichloroethane	---	---	---	---	10,000 U	---	230,000	---	---
Trichloroethane	10,000 U	27,000	---	---	10,000 U	80,000	82,000	850,000 J	---
4-Methyl-2-Pentanone	---	---	---	---	10,000 U	---	3,000 J	---	---
Tetrachloroethene	---	---	---	---	10,000 U	---	11,000 J	---	---
Toluene	---	---	---	---	10,000 U	---	10,000 J	---	---
Ethybenzene	---	---	---	---	10,000 U	---	8,000 J	---	---
Xylole (total)	---	---	---	---	10,000 U	---	31,000 J	---	---
2-Heptanone	---	---	---	---	---	---	110,000 JN	---	---
Methane, Thioles	---	---	---	---	---	22,000 JN	---	---	---
SEMIVOLATILES	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Carbazole	---	---	---	---	480,000 U	---	---	1100,000 J	1500,000 J
Naphthalene	---	---	---	---	480,000 U	---	---	250,000 J	---
Acenaphthene	---	---	---	---	480,000 U	---	---	380,000 J	380,000 J
4-Nitrophenol	---	---	---	---	1000,000 R	2100,000 R	---	2800,000 R	5100,000 R
4-Nitroniline	---	---	---	---	1000,000 R	2100,000 R	---	6600,000	9500,000
Phenanthrene	---	---	---	---	230,000 J	---	2100,000 J	6600,000	9500,000
Anthracene	---	---	---	---	480,000 U	---	500,000 J	1100,000 J	1400,000
Fluoranthene	---	---	---	---	820,000	3800,000 J	3400,000 J	7400,000	14000,000
Pyrene	---	---	---	---	470,000	4200,000 J	3600,000 J	5400,000	13000,000
Benz(a)anthracene	---	---	---	---	360,000 J	2800,000 J	---	2700,000	7500,000
Chrysene	---	---	---	---	480,000 U	---	2800,000	7500,000	7500,000
bis(2-Ethylenyl) phthalate	---	---	---	---	270,000 J	13000,000	34000,000	---	---
Benz(b)fluoranthene	---	---	---	---	780,000	---	---	3100,000	7100,000
Benz(d)fluoranthene	---	---	---	---	430,000 U	---	---	2800,000	7800,000
Benz(a)pyrene	---	---	---	---	410,000 J	2000,000 J	---	2800,000	8200,000
Indeno[1,2,3- <i>cd</i>]pyrene	---	---	---	---	210,000 J	---	---	2800,000	---
Benz(g,h,i)perylene	---	---	---	---	480,000 U	---	---	3000,000	---
Diotocasiamino(2ET,10L) EST	---	---	---	---	---	170000,000 JN	---	---	---
PESTICIDES	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
alpha-BHC	0.007 JP	0.008 JP	0.005 JP	--	2,200 UJ	--	--	1,300 JP	1,400 J
beta-BHC	0.050 U	--	--	0.025 JP	2,200 U	--	--	--	--
gamma-BHC (Lindane)	--	--	--	--	2,200 UJ	2,000 J	--	--	--
Heptachlor	--	--	--	--	2,200 U	--	2,000 JP	--	--
Aldrin	0.004 JP	0.004 JP	0.006 JP	--	1,800 JP	10,000 P	11,000 P	27,000	8,000 P
Dieldrin	--	--	--	--	1,300 J	8,000 P	2,800 JP	28,000	8,800 P
4,4'-DDT	--	--	--	--	46,000 PJ	--	--	--	--
Endrin	0.100 U	0.008 JP	--	--	5,300 JP	--	100,000 P	--	--
Endosulfan II	--	--	--	--	4,800 U	28,000	--	--	13,000
4,4'-DDD	--	--	--	--	56,000 PJ	--	--	--	--
Endosulfan sulfate	--	--	--	--	13,000	47,000	--	44,000	--
4,4'-DT	0.006 JP	--	0.008 JP	0.008 JP	95,000 PJ	4,300 JP	42,000 PJ	21,000 P	200,000 D
Endrin Ketone	--	--	--	--	4,300 U	23,000 P	--	25,000 P	--
alpha-Chlordene	0.005 JP	0.006 J	0.004 JP	--	2,200 J	12,000	3,100 P	18,000 P	30,000
gamma-Chlordene	--	--	--	--	1,700 J	7,100 P	22,000	20,000 P	28,000
Aroclor-1248	--	--	--	--	480,000 U	--	--	--	--
Aroclor-1254	1,000 U	--	0.180 JP	--	84,000 JD	800,000 D	1800,000 PD	2800,000 PD	--
Aroclor-1280	--	--	--	--	430,000 U	860,000 PD	2900,000 PD	4700,000 DC	9100,000 PD
INORGANICS	ug/l	ug/l	ug/l	ug/l	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	28,400 B	--	--	--	5800,000	8270,000	2020,000	6630,000	4420,000
Arsenic	--	--	--	--	3,880	8,370	4,870	8,840	21,880
Barium	107,000 BJ	61,700 BJ	61,700 BJ	63,200 BJ	81,000	81,200	36,800	80,700	58,500
Beryllium	--	--	--	--	0.510 B	5,100	--	1,400 B	0,880 B
Cadmium	18,400	--	--	--	1,300 U	3,300	--	--	--
Calcium	133000,000	108000,000	118000,000	121000,000	84300,000	52200,000	14600,000	37200,000	38000,000
Chromium	--	--	--	--	12,200	28,000	7,800	17,800	21,000
Cobalt	--	--	--	--	4,000 B	7,200 B	3,800 B	8,200 B	4,800 B
Copper	186,000	--	--	--	17,200	3120,000	74,300	758,000	157,000
Iron	103,000	--	--	--	13600,000	19000,000	8380,000	17800,000	11900,000
Lead	6,100 J	--	--	--	18,800	1410,000	68,700	779,000	254,000
Magnesium	24600,000	48400,000	49700,000	44800,000	28800,000	26800,000	7770,000	18800,000	18000,000
Manganese	33,800	581,000	602,000	1080,000	805,000	478,000	136,000	318,000	274,000
Mercury	--	--	--	--	0,180	0,470	0,088 B	0,880	0,300
Nickel	42,800	18,000 B	--	--	14,800	80,100	8,700 B	27,700	18,400
Potassium	18400,000	4230,000	4880,000 B	4860,000 B	1860,000	637,000 B	428,000 B	1150,000 B	740,000 B
Silver	--	--	--	--	0,840 U	0,800 B	--	1,800 B	--
Sodium	10500,000	75800,000	28200,000	26300,000	183,000 B	808,000 B	186,000 B	948,000 B	512,000 B
Vanadium	--	--	--	--	15,800	14,100	5,400 B	18,800	13,800
Zinc	71,700,000	--	--	--	70,700	9480,000	300,000	3270,000	986,000
Sulfate	42200,000	77700,000	88000,000	67100,000	N.A.	N.A.	N.A.	N.A.	N.A.
Boron	519,000	3863,000	887,000	828,000	2,400 U	108,000	--	28,400	--

VACANT LOT LD964775437					
TABLE 3-7 VACANT LOT SOURCE CONTAMINANTS					
SAMPLING POINT PARAMETER	X102 Surface Material 5-4-93	X103 Surface Material 5-4-93	X104 Surface Material 5-4-93	X105 Dup. X104 5-4-93	X107 Surface Material 5-4-93
VOLATILES	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Acetone	19.00	--	--	4.00 J	7.00 J
1,2-Dichloroethane (total)	29.00	--	--	--	56.00
Chloroform	3.00 J	--	--	--	--
2-Bulane	18.00	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--
Trichloroethene	440.00	--	--	--	130.00 J
Tetrachloroethene	3.00 J	--	--	--	24.00 J
Toluene	7.00 J	--	--	--	--
SEMOVOLATILES	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Naphthalene	--	260.00 J	--	--	350.00 J
2-Methylnaphthalene	--	460.00 J	--	--	270.00 J
Acenaphthylene	--	330.00 J	--	--	--
Acenaphthene	--	--	--	--	--
Dibenzofuran	--	--	--	--	--
Phenanthrene	260.00 J	360.00	180.00 J	230.00 J	700.00 J
Anthracene	--	320.00 J	--	--	--
Carbazole	--	--	--	--	--
Fluoranthene	270.00 J	4000.00	190.00 J	340.00 J	1100.00 J
Pyrene	290.00 J	3700.00	280.00 J	380.00 J	1600.00
Benz(a)anthracene	190.00 J	2300.00	--	280.00 J	1000.00 J
Chrysene	--	2800.00	--	--	--
beta(2-Ethyloxy)phthalate	200.00 J	--	--	--	1500.00
Benz(a)bifluoranthene	440.00	3400.00	480.00	1100.00	990.00 J
Benz(a)fluoranthene	--	2400.00	--	--	--
Benz(a)pyrene	--	2400.00	230.00 J	570.00	520.00 J
Indeno(1,2,3-cd)pyrene	--	--	--	--	--
Benz(g,h)perylene	--	--	--	--	--
PESTICIDES	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
gamma-HxC (Lindane)	--	--	--	--	--
Heptachlor	--	--	--	--	--
Aldrin	66.00	67.00	24.00	28.00	49.00
Heptachlor epoxide	27.00 P	--	--	--	--
Endosulfan I	--	--	--	0.66 JP	--
Dieldrin	--	16.00 P	3.70 J	4.90	--
4,4'-DD	--	--	--	--	1800.00 PCU
Endrin	--	170.00	--	--	--
Endosulfan II	--	59.00	5.70	7.40	--
4,4'-DDO	--	--	--	--	1100.00 PCU
Endosulfan sulfate	5.50	--	--	--	12.00
4,4'-DDT	--	180.00 D	8.80 PJ	12.00 PJ	1400.00 PCU
Methachrychlor (Mirex)	18.00 JP	250.00 JD	--	--	38.00 PJ
alpha-Chlordene	--	--	--	--	--
gamma-Chlordene	22.00 P	41.00	3.30 P	4.80 P	18.00 P
Aroclor-1232	--	--	120.00 P	180.00 P	--
Aroclor-1242	--	--	230.00 P	--	--
Aroclor-1248	--	--	--	--	--
Aroclor-1254	1800.00 PD	2100.00 PD	400.00 P	520.00 P	4400.00 PD
Aroclor-1260	770.00 PD	5400.00 PD	510.00	620.00	1400.00 PD
INORGANICS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	17000.00	6600.00	13100.00	14300.00	12100.00
Antimony	--	--	--	--	--
Arsenic	23.20	465.00	22.60	29.80	16.40
Barium	364.00	120.00	294.00	310.00	227.00
Beryllium	54.80	2.10	54.10	57.70	15.80
Cadmium	36.80	8.80	16.30	18.10	21.70
Calcium	17800.00	42400.00	18800.00	19400.00	24300.00
Chromium	228.00	32.30	138.00	138.00	107.00
Cobalt	44.00	22.80	48.20	38.00	41.40
Copper	38800.00	919.00	27600.00	28600.00	14300.00
Iron	60000.00	39100.00	58600.00	66100.00	27800.00
Led	12800.00	268.00	8880.00	8810.00	8880.00
Magnesium	6130.00	2000.00	8210.00	8800.00	9300.00
Manganese	2540.00	538.00	3180.00	3440.00	1200.00
Mercury	1.13	0.66	0.53	0.29	3.23
Nickel	780.00	46.80	561.00	572.00	273.00
Potassium	469.00 S	1110.00 S	803.00 B	860.00 S	1580.00 S
Selenium	4.06	--	5.57 J	5.66 J	6.41 J
Silver	8.80	3.30	8.40	8.80	48.20
Sodium	2880.00	400.00 S	5610.00	7180.00	9160.00 S
Thorium	--	--	--	--	--
Vanadium	24.40	26.10	20.80	22.50	24.90
Zinc	98000.00	1870.00	82500.00	80300.00	37200.00
Boron	1040.00	36.20	2030.00	2300.00	195.00

Sample X106 was not collected.



AMERICAN ENVIRONMENTAL ANALYTICAL INC.

7-
683

LABORATORY REPORT

RECEIVED
08/05/94 CECIL, INC.

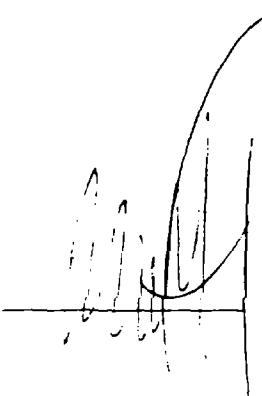
8/12/94
CECIL, INC.
RECEIVED
08/12/94 CECIL, INC.

CLIENT : City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656

PROJECT : North Chicago, Pettibone Creek.
NO : N/A
ATT. TO : Bruce Burris
RECEIVED : 08/05/94
REPORTED : 08/12/94
FILE # : 40805026

VERIFIED BY:

LAB DIRECTOR:





AMERICAN ENVIRONMENTAL ANALYTICAL INC.

This is the requested information from the bottles you asked for.

<u>No.</u>	<u>Description</u>	<u>AEA ID #</u>
1	20ft. for outfall	40805026
2	Composite (over 2ft. depth)	40805027
3	Right Bank st. 0+40	40805028
4	Left Bank st. 0+40	40805029
5	None	40805030
6	st. 4+00	40805031



AMERICAN ENVIRONMENTAL ANALYTICAL INC.

CONSULTANT

City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656
Phone: (708) 918-5264
Fax : (708) 918-9826

PROJECT:

Name: North Chic; Pettibone Creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 1
Sample AEA ID# : 40805026
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/12/94
Date Analyzed : 08/12/94
Date Reported : 08/12/94
Analyst : N.K.

LABORATORY ANALYSIS:

<u>ANALYSIS</u>	<u>RESULTS</u>	<u>UNITS</u>	<u>MDL</u>	<u>METHOD</u>
Total Phenol	ND	mg/Kg	3.0	9065
Paint Filter	Pass	%	NA	9095
Flash Point	No Flash	NA	25-220°C	1010
pH	9.2	pH	0-14	9040



AMERICAN ENVIRONMENTAL ANALYTICAL INC.

CONSULTANT

City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656
Phone: (708) 918-5264
Fax : (708) 918-9826

PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID:1
Sample AEA ID# : 40805026
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers:1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/09/94
Date Analyzed : 08/09/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

<u>PARAMETER</u>	<u>RESULTS</u>	<u>UNITS</u>	<u>METHOD</u>
Aroclor 1016	<30	ppb	SW846-8080
Aroclor 1221	<55	ppb	
Aroclor 1232	<30	ppb	
Aroclor 1242	<30	ppb	
Aroclor 1248	<30	ppb	
Aroclor 1254	<30	ppb	
Aroclor 1260	<30	ppb	
Aldrin	<1.0	ppb	
alpha-BHC	<1.0	ppb	
beta-BHC	<2.0	ppb	
gamma-BHC (Lindane)	<1.0	ppb	
delta-BHC	<1.0	ppb	
Chlordane	<1.0	ppb	
4,4'-DDT	<3.0	ppb	
4,4'-DDE	<1.0	ppb	
4,4'-DDD	<1.0	ppb	
Dieldrin	<1.0	ppb	
Endosulfan I	<1.0	ppb	
Endosulfan II	<1.0	ppb	
Endosulfan sulfate	<1.0	ppb	
Endrin	<2.0	ppb	
Endrin aldehyde	<2.0	ppb	
Heptachlor	<1.0	ppb	
Heptachlor epoxide	<1.0	ppb	
Methoxychlor	<10.0	ppb	
Toxaphene	<80.0	ppb	



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CONSULTANT

City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656
Phone: (708) 918-5264
Fax : (708) 918-9826

PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 1
Sample AEA ID# : 40805026
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/10/94
Date Analyzed : 08/10/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS

TCLP METALS 1311/7000

<u>PARAMETERS</u>	<u>MDL</u>	<u>UNITS</u>	<u>RESULTS</u>
Arsenic	1	mg/L	ND
Barium	100	mg/L	ND
Cadmium	10	mg/L	ND
Chromium	10	mg/L	ND
Lead	0.50	mg/L	0.623
Mercury	1	mg/L	ND
Selenium	5	mg/L	ND
Silver	10	mg/L	ND



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CONSULTANT

City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656
Phone: (708) 918-5264
Fax : (708) 918-9826

PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 2
Sample AEA ID# : 40805027
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/12/94
Date Analyzed : 08/12/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

<u>ANALYSIS</u>	<u>RESULTS</u>	<u>UNITS</u>	<u>MDL</u>	<u>METHOD</u>
Total Phenol	9.2	mg/Kg	3.0	9065
Paint Filter	Pass	%	NA	9095
Flash Point	No Flash	NA	25-220 °C	1010
pH	9.0	pH	0-14	9040



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CONSULTANT

City of North Chicago
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Fax : (708) 918-9826

SAMPLE DESCRIPTION

Client Project ID:2
Sample AEA ID# : 40805027
Matrix :Soil
Sampler :K.Humphres & Marion
Sample Container :Glass
No. of Containers:1
Date Collected :08/05/94
Date Received :08/05/94
Date Extracted :08/10/94
Date Analyzed :08/10/94
Date Reported :08/12/94
Analyst :M.G.

PROJECT:

Name:North Chic;Peitibone creek
No :N/A
Att :Bruce Burris

LABORATORY ANALYSIS:

PARAMETER	RESULTS	UNITS	METHOD
Aroclor 1016	<300	ppb	SW846-8080
Aroclor 1221	<550	ppb	
Aroclor 1232	<300	ppb	
Aroclor 1242	<300	ppb	
Aroclor 1248	<300	ppb	
Aroclor 1254	<300	ppb	
Aroclor 1260	14900	ppb	
Aldrin	<10.0	ppb	
alpha-BHC	<10.0	ppb	
beta-BHC	<20.0	ppb	
gamma-BHC (Lindane)	<10.0	ppb	
delta-BHC	<10.0	ppb	
Chlordane	<10.0	ppb	
4,4'-DDT	<30.0	ppb	
4,4'-DDE	<10.0	ppb	
4,4'-DDD	<10.0	ppb	
Dieldrin	<10.0	ppb	
Endosulfan I	<10.0	ppb	
Endosulfan II	<10.0	ppb	
Endosulfan sulfate	<10.0	ppb	
Endrin	<20.0	ppb	
Endrin aldehyde	<20.0	ppb	
Heptachlor	<10.0	ppb	
Heptachlor epoxide	<10.0	ppb	
Methoxychlor	<100	ppb	
Toxaphene	<800	ppb	



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CONSULTANT

City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656
Phone: (708)918-5264
Fax : (708)918-9826

PROJECT:

Name:North Chic;Peitibone creek
No :N/A
Att :Bruce Burris

SAMPLE DESCRIPTION

Client Project ID:2
Sample AEA ID# :40805027
Matrix :Soil
Sampler :K.Humphres & Marion
Sample Container :Glass
No. of Containers:1
Date Collected :08/05/94
Date Received :08/05/94
Date Extracted :08/10/94
Date Analyzed :08/10/94
Date Reported :08/12/94
Analyst :M.G.

LABORATORY ANALYSIS

TCLP METALS 1311/7000

<u>PARAMETERS</u>	<u>MDL</u>	<u>UNITS</u>	<u>RESULTS</u>
Arsenic	1	mg/L	ND
Barium	100	mg/L	ND
Cadmium	10	mg/L	ND
Chromium	10	mg/L	ND
Lead	0.05	mg/L	0.135
Mercury	1	mg/L	ND
Selenium	5	mg/L	ND
Silver	10	mg/L	ND



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Fax : (708) 918-9826

PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 3
Sample AEA ID# : 40805028
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/12/94
Date Analyzed : 08/12/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

<u>ANALYSIS</u>	<u>RESULTS</u>	<u>UNITS</u>	<u>MDL</u>	<u>METHOD</u>
-----------------	----------------	--------------	------------	---------------

Total Phenol	3.7	mg/Kg	3.0	9065
--------------	-----	-------	-----	------

Paint Filter	Pass	%	NA	9095
--------------	------	---	----	------

Flash Point	No Flash	NA	25-220°C	1010
-------------	----------	----	----------	------

pH	8.5	pH	0-14	9040
----	-----	----	------	------



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Fax : (708) 918-9826

PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 3
Sample AEA ID# : 40805028
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/09/94
Date Analyzed : 08/09/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

<u>PARAMETER</u>	<u>RESULTS</u>	<u>UNITS</u>	<u>METHOD</u>
Aroclor 1016	<30	ppb	SW846-8080
Aroclor 1221	<55	ppb	
Aroclor 1232	<30	ppb	
Aroclor 1242	<30	ppb	
Aroclor 1248	<30	ppb	
Aroclor 1254	<30	ppb	
Aroclor 1260	<30	ppb	
Aldrin	<1.0	ppb	
alpha-BHC	<1.0	ppb	
beta-BHC	<2.0	ppb	
gamma-BHC (Lindane)	<1.0	ppb	
delta-BHC	<1.0	ppb	
Chlordane	<1.0	ppb	
4,4'-DDT	36	ppb	
4,4'-DDE	<1.0	ppb	
4,4'-DDD	36	ppb	
Dieldrin	<1.0	ppb	
Endosulfan I	<1.0	ppb	
Endosulfan II	<1.0	ppb	
Endosulfan sulfate	<1.0	ppb	
Endrin	<2.0	ppb	
Endrin aldehyde	<2.0	ppb	
Heptachlor	<1.0	ppb	
Heptachlor epoxide	<1.0	ppb	
Methoxychlor	<10.0	ppb	
Toxaphene	<80.0	ppb	



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Fax : (708) 918-9826

PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 3
Sample AEA ID# : 40805028
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/10/94
Date Analyzed : 08/10/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS

TCLP METALS 1311/7000

<u>PARAMETERS</u>	<u>MDL</u>	<u>UNITS</u>	<u>RESULTS</u>
Arsenic	1	mg/L	ND
Barium	100	mg/L	ND
Cadmium	10	mg/L	ND
Chromium	10	mg/L	ND
Lead	0.05	mg/L	0.500
Mercury	1	mg/L	ND
Selenium	5	mg/L	ND
Silver	10	mg/L	ND



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PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 4
Sample AEA ID# : 40805029
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/12/94
Date Analyzed : 08/12/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

<u>ANALYSIS</u>	<u>RESULTS</u>	<u>UNITS</u>	<u>MDL</u>	<u>METHOD</u>
Total Phenol	3.7	mg/Kg	3.0	9065
Paint Filter	Pass	%	NA	9095
Flash Point	No Flash	NA	25-220°C	1010
pH	8.2	pH	0-14	9040



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CONSULTANT

City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656
Phone: (708)918-5264
Fax : (708)918-9826

SAMPLE DESCRIPTION

Client Project ID:4
Sample AEA ID# : 40805029
Matrix :Soil
Sampler :K.Humphres & Marion
Sample Container :Glass
No. of Containers:1
Date Collected :08/05/94
Date Received :08/05/94
Date Extracted :08/09/94
Date Analyzed :08/09/94
Date Reported :08/12/94
Analyst :M.G.

LABORATORY ANALYSIS:

PARAMETER	RESULTS	UNITS	METHOD
Aroclor 1016	<30	ppb	SW846-8080
Aroclor 1221	<55	ppb	
Aroclor 1232	<30	ppb	
Aroclor 1242	<30	ppb	
Aroclor 1248	<30	ppb	
Aroclor 1254	<30	ppb	
Aroclor 1260	<30	ppb	
Aldrin	<1.0	ppb	
alpha-BHC	<1.0	ppb	
beta-BHC	<2.0	ppb	
gamma-BHC (Lindane)	<1.0	ppb	
delta-BHC	<1.0	ppb	
Chlordane	<1.0	ppb	
4,4'-DDT	78.7	ppb	
4,4'-DDE	2.7	ppb	
4,4'-DDD	<1.0	ppb	
Dieldrin	<1.0	ppb	
Endosulfan I	<1.0	ppb	
Endosulfan II	<1.0	ppb	
Endosulfan sulfate	<1.0	ppb	
Endrin	<2.0	ppb	
Endrin aldehyde	<2.0	ppb	
Heptachlor	<1.0	ppb	
Heptachlor epoxide	<1.0	ppb	
Methoxychlor	<10.0	ppb	
Toxaphene	<80.0	ppb	

PROJECT:

Name:North Chic;Peitibone creek
No :N/A
Att :Bruce Burris



AMERICAN ENVIRONMENTAL ANALYTICAL INC.

CONSULTANT

City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656
Phone: (708) 918-5264
Fax : (708) 918-9826

PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 4
Sample AEA ID# : 40805029
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/10/94
Date Analyzed : 08/10/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS

TCLP METALS 1311/7000

<u>PARAMETERS</u>	<u>MDL</u>	<u>UNITS</u>	<u>RESULTS</u>
Arsenic	1	mg/L	ND
Barium	100	mg/L	ND
Cadmium	10	mg/L	ND
Chromium	10	mg/L	ND
Lead	0.050	mg/L	0.673
Mercury	1	mg/L	ND
Selenium	5	mg/L	ND
Silver	10	mg/L	ND



AMERICAN ENVIRONMENTAL ANALYTICAL INC.

CONSULTANT

City of North Chicago
1850 Lewis Ave.
North Chicago, IL 60656
Phone: (708) 918-5264
Fax : (708) 918-9826

PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 5
Sample AEA ID# : 40805030
Matrix : Soil
Sampler : K.Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/12/94
Date Analyzed : 08/12/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

<u>ANALYSIS</u>	<u>RESULTS</u>	<u>UNITS</u>	<u>MDL</u>	<u>METHOD</u>
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Total Phenol	3.7	mg/Kg	3.0	9065
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Paint Filter	Pass	%	NA	9095
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Flash Point	No Flash	NA	25-220°C	1010
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pH	8.2	pH	0-14	9040
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Date Analyzed : 08/09/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

PARAMETER	RESULTS	UNITS	METHOD
Aroclor 1016	<30	ppb	SW846-8080
Aroclor 1221	<55	ppb	
Aroclor 1232	<30	ppb	
Aroclor 1242	<30	ppb	
Aroclor 1248	<30	ppb	
Aroclor 1254	<30	ppb	
Aroclor 1260	<30	ppb	
Aldrin	<1.0	ppb	
alpha-BHC	<1.0	ppb	
beta-BHC	<2.0	ppb	
gamma-BHC (Lindane)	<1.0	ppb	
delta-BHC	<1.0	ppb	
Chlordane	<1.0	ppb	
4,4'-DDT	<3.0	ppb	
4,4'-DDE	<1.0	ppb	
4,4'-DDD	<1.0	ppb	
Dieldrin	<1.0	ppb	
Endosulfan I	<1.0	ppb	
Endosulfan II	<1.0	ppb	
Endosulfan sulfate	<1.0	ppb	
Endrin	<2.0	ppb	
Endrin aldehyde	<2.0	ppb	
Heptachlor	<1.0	ppb	
Heptachlor epoxide	<1.0	ppb	
Methoxychlor	<10.0	ppb	
Toxaphene	<80.0	ppb	



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Analyst : M.G.

LABORATORY ANALYSIS

TCLP METALS 1311/7000

<u>PARAMETERS</u>	<u>MDL</u>	<u>UNITS</u>	<u>RESULTS</u>
Arsenic	1	mg/L	ND
Barium	100	mg/L	ND
Cadmium	10	mg/L	ND
Chromium	10	mg/L	ND
Lead	0.05	mg/L	0.308
Mercury	1	mg/L	ND
Selenium	5	mg/L	ND
Silver	10	mg/L	ND



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PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 6
Sample AEA ID# : 40805031
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/12/94
Date Analyzed : 08/12/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

<u>ANALYSIS</u>	<u>RESULTS</u>	<u>UNITS</u>	<u>MDL</u>	<u>METHOD</u>
Total Phenol	ND	mg/Kg	3.0	9065
Paint Filter	Pass	%	NA	9095
Flash Point	No Flash	NA	25-220°C	1010
pH	7.6	pH	0-14	9040



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PROJECT:

Name: North Chic; Peitibone creek
No : N/A
Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 6
Sample AEA ID# : 40805031
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/09/94
Date Analyzed : 08/09/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS:

PARAMETER	RESULTS	UNITS	METHOD
Aroclor 1016	<30	ppb	SW846-8080
Aroclor 1221	<55	ppb	
Aroclor 1232	<30	ppb	
Aroclor 1242	<30	ppb	
Aroclor 1248	<30	ppb	
Aroclor 1254	<30	ppb	
Aroclor 1260	<30	ppb	
Aldrin	<1.0	ppb	
alpha-BHC	<1.0	ppb	
beta-BHC	<2.0	ppb	
gamma-BHC (Lindane)	<1.0	ppb	
delta-BHC	<1.0	ppb	
Chlordane	<1.0	ppb	
4,4'-DDT	<3.0	ppb	
4,4'-DDE	<1.0	ppb	
4,4'-DDD	<1.0	ppb	
Dieldrin	<1.0	ppb	
Endosulfan I	<1.0	ppb	
Endosulfan II	<1.0	ppb	
Endosulfan sulfate	<1.0	ppb	
Endrin	<2.0	ppb	
Endrin aldehyde	<2.0	ppb	
Heptachlor	<1.0	ppb	
Heptachlor epoxide	<1.0	ppb	
Methoxychlor	<10.0	ppb	
Toxaphene	<80.0	ppb	



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Att : Bruce Burris

SAMPLE DESCRIPTION

Client Project ID: 6
Sample AEA ID# : 40805031
Matrix : Soil
Sampler : K. Humphres & Marion
Sample Container : Glass
No. of Containers: 1
Date Collected : 08/05/94
Date Received : 08/05/94
Date Extracted : 08/10/94
Date Analyzed : 08/10/94
Date Reported : 08/12/94
Analyst : M.G.

LABORATORY ANALYSIS

TCLP METALS 1311/7000

<u>PARAMETERS</u>	<u>MDL</u>	<u>UNITS</u>	<u>RESULTS</u>
Arsenic	1	mg/L	ND
Barium	100	mg/L	ND
Cadmium	10	mg/L	ND
Chromium	10	mg/L	ND
Lead	0.05	mg/L	0.130
Mercury	1	mg/L	ND
Selenium	5	mg/L	ND
Silver	10	mg/L	ND



AMERICAN ENVIRONMENTAL ANALYTICAL

LABORATORY TESTING OF SOIL
WATER AND HAZARDOUS MATTER

3516 W. Dempster, Skokie, IL 60076
Tel (708) 329-0922 Fax: (708) 329-1225

CHAIN OF CUSTODY

Customer Name & Address: CITY OF NORTH CHICAGO Address: 1850 LEWIS AVE, NORTH CHICAGO, IL 60064 ATTN: BRUCE BURRIS, C.D.R.B.A GROUP Report to: 5507 N. CUMBERLAND AVE. Phone #: 708 918 9826 FAX	Project Name: NORTH CHICAGO, PETTIBONE CREEK Sampler Name: KEITH HUMPHRIES & MARION Project #: _____ Time Period: 5 Day 3 Day 1-2 Day <24hr. Date Needed: 8/12/94
--	---

#	Description	Matrix	Date/ Time	Type Cont.	# Cont.	Parameters Requested	AEA ID #
1	CORROSION	SS1	8/15/94 11:30AM	Glass	1		40805026
2	FLASH POINT						40805027
3	PAINT FILTER TEST						40805028
4	PHENOL					(P.CRA)	40805029
5	TCLP					METAL ANALYSIS	40805030
6	TOXICOLOGY					PESTICIDES & PCB	40805031
7							
8							
9							
10							

1							
12							
13							
14							
15							
Sample Preserved:	Y - N					Temp. of Container °C	

Relinquished by: <i>Marion E Kenny</i>	Date/Time: <i>12:18 P.M. 8/15/94</i>	Accepted by: <i>Marion E</i>
Relinquished by: _____	Date/Time: _____	Accepted by: _____

AEA Project Manager:	
Special Instructions:	<i>Send results to Marion Kenny</i>
	Page <i>1</i> of <i>1</i>


**ENVIRONMENTAL
LABORATORIES^{Inc.}**

Attention: Barbara Schmitt
 Waste Management-Pheasant Run Landfill
 19414 60th Street
 Bristol WI 53104-9000

Date of Report: 10/14/94
 Project Number: 09414642
 Lab ID: 94-0013157
 Account Number: 456
 Date Collected: 09/28/94 11:50
 Collected By: Client
 Date Received: 09/29/94 14:00
 C of C Number: 1797
 Temperature: Received on Ice.

DRAFT REPORT

Sample Desc: Soil Exposed to Storm Water/Lake Co. Stormwater Management Pettibone Creek
 22nd St & Commonwealth
 Container Integrity: Meets Standard, Sample Integrity: Meets Standard

	Result	Unit	Det. Limit	Procedure	Test Date
INORGANIC					
COLORIMETRIC					
+ Chlorine	<.1	%	.1	EPA 325.2	10/11/94
PHYSICAL CHAR.					
Specific Gravity, Apparent	1.74	none	.0001	D5057-90	10/10/94
Flash Point	>210	deg F	50	D92-85	10/03/94
Solids, Total	71.9	%	.1	SM 2540G	10/04/94
pH	7.2	none	1	SW 904SA	09/30/94
TCLP					
Barium	<2	mg/l	3	SW 6010A	10/09/94
Cadmium	<.1	mg/l	.1	SW 6010A	10/09/94
Chromium	<.1	mg/l	.1	SW 6010A	10/09/94
Copper	1.4	mg/l	.1	SW 6010A	10/09/94
Lead	<1	mg/l	1	SW 6010A	10/09/94
Nickel	<.15	mg/l	.15	SW 6010A	10/09/94
Silver	<.1	mg/l	.1	SW 6010A	10/09/94
Zinc	12	mg/l	.1	SW 6010A	10/09/94
Arsenic	<.015	mg/l	.015	SW 7060	10/08/94
Mercury	<.002	mg/l	.002	SW 7470	10/10/94
Selenium	<.015	mg/l	.015	SW 7740	10/08/94
Phenolics, TCLP	<1.70	mg/l	.05	SW 9066	10/10/94
WET CHEMISTRY					
Cyanide, Free	<30	mg/kg	30	D5049-90	10/05/94
Acidity as CaCO ₃	<50	mg/kg	50	EPA 305.1	09/30/94
Alkalinity as CaCO ₃	300	mg/kg	50	EPA 310.1	09/30/94
Sulfide, Reactive	<2	mg/kg	2	SW 9030	10/04/94

jma

JMW/JAT

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**ENVIRONMENTAL
LABORATORIES INC.**

Page: 2

Attention: Barbara Schmitt
 Waste Management-Pheasant Run Landfill
 19414 60th Street
 Bristol WI 53104-0000

Date of Report: 10/14/94
 Project Number: 09414642
 Lab ID: 94-0013157
 Account Number: 456
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 C of C Number: 1797
 Temperature: Received on Ice.

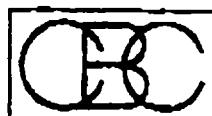
DRAFT REPORT

Sample Desc: Soil Exposed to Storm Water/Lake Co. Stormwater Management Pettibone Creek
 12nd St & Commonwealth
 Container Integrity: Meets Standard, Sample Integrity: Meets Standard

	Result	Unit	Det. Limit	Procedure	Test Date
Free Liquids	0.0	#	1	SW 9095	09/29/94
ORGANIC					
GC PCB'S					
Aroclor 1016	<0.50#	mg/kg	.5	SW 8080	10/07/94
Aroclor 1221	<0.50#	mg/kg	.5	SW 8080	10/07/94
Aroclor 1232	<0.50#	mg/kg	.5	SW 8080	10/07/94
Aroclor 1242	<0.50#	mg/kg	.5	SW 8080	10/07/94
Aroclor 1248	<0.50#	mg/kg	.5	SW 8080	10/07/94
Aroclor 1254	<0.50#	mg/kg	.5	SW 8080	10/07/94
Aroclor 1260	1.7	mg/kg	.5	SW 8080	10/07/94
TCLP					
1,1-Dichloroethane	<.05	mg/l	.05	SW 8240	10/07/94
1,2-Dichloroethane	<.05	mg/l	.05	SW 8240	10/07/94
Benzene	<.05	ug/l	.05	SW 8240	10/07/94
Carbon Tetrachloride	<.05	mg/l	.05	SW 8240	10/07/94
Chlorobenzene	<.05	mg/l	.05	SW 8240	10/07/94
Chlooreform	<.05	mg/l	.05	SW 8240	10/07/94
Methyl Ethyl Ketone	<1	mg/l	1	SW 8240	10/07/94
Tetrachloroethylene	<.05	mg/l	.05	SW 8240	10/07/94
Trichloroethylene	0.051	mg/l	.05	SW 8240	10/07/94
Vinyl Chloride	<.1	mg/l	.1	SW 8240	10/07/94

jma JMA/JMA
 wrs WRS/WRS

REPRINT


**ENVIRONMENTAL
LABORATORIES INC.**

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Collected By: Client
Date Received: 09/29/94 14:00
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Temperature: Received on Ice.

DRAFT REPORT

Sample Desc: Soil Exposed to Storm Water/Lake Co. Stormwater Management Pettibone Creek
22nd St & Commonwealth
Container Integrity: Meets Standard, Sample Integrity: Meets Standard

	Result	Unit	Det. Limit	Procedure	Test Date
1,4-Dichlorobenzene	<.02	mg/l	.02	SW 8270	10/14/94
2,4,5-Trichlorophenol	<.02	mg/l	.02	SW 8270	10/14/94
2,4,6-Trichlorophenol	<.02	mg/l	.02	SW 8270	10/14/94
2,4-Dinitrotoluene	<.08	mg/l	.08	SW 8270	10/14/94
Cresols, Total	<.064	mg/l	.064	SW 8270	10/14/94
Hexachlorobenzene	<.022	mg/l	.022	SW 8270	10/14/94
Hexachlorobutadiene	<.028	mg/l	.028	SW 8270	10/14/94
Hexachloroethane	<.02	mg/l	.02	SW 8270	10/14/94
Nitrobenzene	<.038	mg/l	.038	SW 8270	10/14/94
Pentachlorophenol	<.048	mg/l	.048	SW 8270	10/14/94
Pyridine	<.08	mg/l	.08	SW 8270	10/14/94

Please contact Client Services with any questions. Water samples are disposed of 30 days after receipt; soil samples will be disposed of 6 weeks after receipt; waste samples (non-water, non-soil) will be returned 6 weeks after receipt.

N/T = Not Tested, N/A = Not Applicable, N/D = Not Detected.

D = Detected below the Quantitation Limit. J = Estimated below the Quantitation Limit.

Elevated Detection Limits :

= Due to matrix interference.

= Due to sample concentration.

\$ = Due to sample quantity.

+ = Due to extract volume.

Reviewed and Approved by:

JMW/JRS
Wea Saferite

Reviewed and Approved by:

JMW/JAF
Jayne Armbruster

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